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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/570,290	02/28/2006	Adrianus Josephus Bink	NL031031	5446
65913 NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131	7550 05/13/2009		<div>EXAMINER</div> <div>GIARDINO JR, MARK A</div>	
			<div>ART UNIT</div> <div>2185</div>	<div>PAPER NUMBER</div>
			<div>NOTIFICATION DATE</div> <div>05/13/2009</div>	<div>DELIVERY MODE</div> <div>ELECTRONIC</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

**Advisory Action  
Before the Filing of an Appeal Brief**

**Application No.**

10/570,290

**Applicant(s)**

BINK ET AL.

**Examiner**

MARK A. GIARDINO JR

**Art Unit**

2185

***--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***

THE REPLY FILED 27 April 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
 b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
 Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: \_\_\_\_\_.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
 13. ☐ Other: \_\_\_\_\_.

/Stephen Elmore/  
Primary Examiner, Art Unit 2185

Continuation of 11, does NOT place the application in condition for allowance because: Applicant's argument regarding Claims 1 and 8 that the remapping of memory modules between different physical banks is not inherent has been considered but is not persuasive. Applicant alleges in the first paragraph of Page 7 of the remarks that the limitation "'to remap memory modules from a first physical bank of memory modules to a second physical bank of memory modules'" is asserted by the Examiner to be inherent in Cherabuddi. The only limitations asserted as inherent in the Office Action are the presence of memory modules within the cache and the division of cache memory, made up of SRAM, into physical banks. The Office Action includes explanations of technical reasoning and rationale adequate to show that the inherent teachings are necessarily present in the applied reference. Regarding the limitation "to remap memory modules from a first physical bank of memory modules to a second physical bank of memory modules", during the switching of modes from two independent 2-way set associative caches to a single 4-way set associative cache (described at Column 7 Lines 11-30, also Column 7 Line 64 to Column 8 Line 4), the physical banks of the SRAM of cache memory 23b are remapped from a 2-way set associative cache to part of a 4-way set associative cache. For example, data used by CPU 21a that could only be written to cache 23a (a first bank of memory modules) during the independent mode can be written to cache 23b (a second bank of memory modules) during 4-way set associative cache mode, satisfying the limitation of remapping the memory modules from a first physical bank of memory modules to a second physical bank of memory modules.

Applicant's argument regarding Claims 1 and 8 that "Cherabuddi does not address remapping memory modules between different physical banks of memory" has been considered but is not persuasive. This language does not appear in Claims 1 or 8. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant's argument regarding Claim 9 that Cherabuddi does not teach a lookup table for faulty modules has been considered but is not persuasive. Claim 9 discusses the remapping means "further configured to distribute faulty modules evenly over a plurality of banks", and this limitation is admittedly not taught by Cherabuddi, but is disclosed by Asher, and the references are combined in a U.S.C. 103(a) rejection.

Applicant's argument regarding Claims 13 and 17 that Cherabuddi does not teach "the remapping means is further configured to remap at least one of the memory modules to a new way and a same index within the second bank of physical memory modules" has been considered but is not persuasive. The cache modules of 23b are mapped from a 2-way set-associative cache to a 4-way set associative cache (described at Column 7 Lines 11-30, also Column 7 Line 64 to Column 8 Line 4), therefore what used to be the first and second ways of a 2-way set associative cache are remapped to the third and fourth ways of the 4-way set associative cache. One of ordinary skill in the art could reasonably assume that caches 23a and 23b are the same size and constructed the same way, which keeps the indices the same after the transition from a 2-way set associative cache to 4-way set associative cache.

Applicant's argument regarding Claims 11 and 18 have been considered but is not persuasive. As discussed above regarding Claims 13 and 17, Cherabuddi teaches mapping physical banks of a cache to a new way, and the ability of Asher to use multiplexers to remap defective modules within a set-associative cache satisfy the limitation of the remapping means configured to remap to a different index. In Asher, multiplexer 26 of Figure 2 in Asher is used to change Block 15 from being unable to map data (thus having no real index) to replacing a faulty module, giving it the index of the faulty module (Column 6 Lines 42-59 in Asher).